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EXAMINER
LIN, KELVIN Y

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
		09/976,540	GRABARNIK ET AL.
Office Action Summary		Examiner	Art Unit
		Kelvin Lin	2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Response to Remarks

1.   Applicant's arguments, see Remarks page 11, filed on July 31, 2006, with

respect to the Hellerstein reference is not a proper prior art reference for a 103(A)

rejection is not persuasive. The reasons are listed as follows:

Applicant has attempted to disqualify reference Hellerstein et al., (U.S. PG Pub

No. 2002/0073195) under 35 U.S.C. 103(c) by showing that the invention was owned

by, or subject to an obligation of assignment to, the same entity as Hellerstein et al.,

(U.S. PG Pub No. 2002/0073195) at the time this invention was made. However,

applicant has failed to provide a statement that the application and the reference were

owned by, or subject to an obligation of assignment to, the same person at the time the

invention was made in a conspicuous manner, and therefore, is not disqualified as prior

art under 35 U.S.C. 103(a). Applicant must file the required evidence in order to

properly disqualify the reference under 35 U.S.C. 103(c). And the statement concerning

common ownership should be clear and conspicuous (e.g. on a separate piece of paper

of in a separately labeled section). See MPEP § 706.02(l)(2), Section II.

In addition, applicant may overcome the applied art either by a showing under 37

CFR 1.132 that the invention disclosed therein was derived from the inventor of this

application, and is therefore, not the invention "by another," or by antedating the applied

art under 37 CFR 1.131.

Therefore, the ground rejections of Claims 4-6 are maintained under 35 U.S.C

103(a) as being unpatentable over Cookmeyer in view of Hellerstein et al., (U.S. PG

Pub No. 2002/0073195) as addressed at previous Office Action filed on April 27, 2006.

2.   However, upon further consideration, a new ground(s) of rejection is made in

view of Ma et al (Publication, Ma et al., Mining Event Data for Actionable Patterns, IBM

T.J. Watson Research Center, NY, year 2000).

Remark: In order to identify whether the publication qualify for 102(a) or (b)), the

Examiner requests the date information from the applicant about the publication "Mining

Event Data for Actionable Patterns" mentioned above. Because it only shows the

published year 2000 and without date.

3.   Applicant's arguments with respect to claims 1, 7, 13,15, and 17 have been

        considered but they are not persuasive.

4.   The Applicant is arguing the following:

        1) Cookmeyer does not disclose a combined off-line automatic data analysis

           and off-line rule management methodology, as in he claimed invention.

        As to point (1), Applicant argues that Cookmeyer only use the term off-line

in the context of "expert analysis", and does not discloses in the context of a

combined automatic data analysis and rule management methodology, it has

been considered but is not persuasive. First, Applicant equates "run time" to

"online", and "design time" to "offline" are misleading. Run time is defined as the

time period during which a program is running; online is defined as in reference

to one or more computers connected to a network; and off-line is defined as in reference to one or more computers disconnected to a network (See Microsoft Software Dictionary). Secondly, Cookmeyer discloses that the rules based expert analysis system for network includes a combination of algorithm (corresponding to automatic data analysis) and heuristic rules (Abstract), at col.3, l.17-21, the present invention a knowledge based expert analysis system includes a rules based inference engine comprising a plurality algorithm grouped in one or more categories of defined network performance criteria (corresponding to rule management methodology). As a consequence, at col.5, l.40-44, the expert system performs the diagnostic assessment (corresponding to rule management methodology) in accordance with an expert analysis algorithm (corresponding to automatic data analysis), either as an "on the fly" or in an off-line manner on captured performance data files. Moreover, at col.5, l.58-62, Cookmeyer discloses that the expert analysis of captured performance data from different vendor type protocol to perform offline protocol analysis.

Therefore, Cookmeyer does disclose the expert system performing the combined of off-line diagnostic assessment (corresponding to rule management methodology) and off-line expert analysis algorithm (corresponding to automatic data analysis).

Response to Amended Claims

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1-3, 15-18 are rejected under 35 USC 102(e) as being anticipated by

Cookmeyer II et al., (U.S. Patent 6529954).

2.   Regarding claim 1, Cookmeyer teaches apparatus for providing decision support

to an analyst in accordance with an event management system which manages a

network with one or more computing devices, the apparatus comprising: at least

one processor operative to perform (Cookmeyer, col.4, l.9-11):

- an automated off-line analysis of data representing past events

  associated with the network of computing devices being managed

  by the event management system, the automated analysis

  comprising generation of one or more visualizations of one or more

portions of the past event data and discovery of one or more

patterns in the past event data (Cookmeyer, col.3, I.17-38, in which

a knowledge based expert analysis corresponds to a automated

analysis system, col.5, I.58-67, col.21, I.47-55, hereafter, the offline

implementation will refer to); and

- automated rule management comprising construction and

  validation of one or more rules formed in accordance with the

  automated off-line analysis of the past event data, wherein one or

  more rules are constructed offline and validated offline based

  directly on at least a portion of the one or more visualization

  generated offline from the corresponding offline analysis of the one

  or more portion of the past event data and the offline discovery of at

  least a portion of the one or more patterns in the past event data

  (Cookmeyer, Fig.9, col.3, I.17-20, I.32-38, col.4, I.60, col.5, I.58-67,

  and col.21, I.51-52, col.22, I.13-33); and

- memory, coupled to the at least one processor, which stores at

  least a portion of results associated with the automated event

  off-line analysis and off-line rule management operations

  (Cookmeyer, col.7, I.15-24)

3.   Regarding claim 2, Cookmeyer further discloses the apparatus of claim 1,

Wherein,

the past event data is obtained from an event database and the one or more

rules are provided to a rule database, the event database and the rule database

being associated with an execution system of the event management system.

(Cookmeyer, col.25, l.37-43).

4.   Regarding claim 3, Cookmeyer further discloses the apparatus of claim 2,

Wherein,

generation of the one or more visualizations of the one or more portions of the

past event data further comprises:

- selecting a subset of the past event data from the event database
  (Cookmeyer, col.22, l.13-33);

- generating a visualization of the subset of past event data using a
  visualization tool (Cookmeyer, col.21, l.47-55);

- the analyst reviewing the visualization to determine whether there
  are any groupings of events that are of interest presented therein
  (Cookmeyer, col.22, l.34-38);
  and

- performing an appropriate action when an event grouping of
  interest is found (Cookmeyer, col.22, l.41-47).

5.   Regarding claims 15-16 have similar limitations as claims 1-2, the difference is

one is claimed for apparatus, and the other is claimed for means function.

Therefore, claims 15-16 are rejected for the same reasons set forth in the

rejection of claims 1-2.

6.   Regarding claims 17-18 have similar limitations as claims 1-2, the difference is

one is claimed for apparatus, and the other is claimed for event support system.

Therefore, claims 17-18 are rejected for the same reasons set forth in the

rejection of claims 1-2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 4-6 are rejected under 35 U.S.C 103(a) as being unpatentable over

Cookmeyer in view of Ma et al (Publication, Ma et al., Mining Event Data for

Actionable Patterns, IBM T.J. Watson Research Center, NY, year 2000).

8.   Regarding claim 4, Cookmeyer teaches features of the invention substantially as

claimed, discovery of the one or more patterns in the past event data, selecting a

subset of the past event data from the event database (Cookmeyer, col.22, l.50-

63); generating a visualization of the one or more patterns using a visualization

tool (Cookmeyer, col.22, l.61-63, statistics corresponds to the pattern).the analyst

reviewing the visualization to determine whether there are any patterns of interest

presented therein (Cookmeyer, col.23, l.1-10); and performing an appropriate

action when a pattern of interest is found (Cookmeyer, col.23, I.28-33). Although

the above mentioned prior art teaches event analysis using visualization, it does

not include the mining algorithm.

However, Ma teaches mining the subset of the past event data

to discover the one or more patterns using a mining tool (Ma, page 4, section 2,

algorithm 1).

Because knowing the offline event analysis of event management (Ma, fig.

1) uses event flow data to discover one or more patterns using a mining tool.

(see Ma, page 5, 5th paragraph), which can be used to modify the select the

data source as an off-line analysis of a capture data file and set-up software filter.

(see Cookmeyer, col.21, I.38-46). It would have been obvious to one ordinary

skilled in the art at the time the invention was made to incorporate the teaching

of Howard for data mining algorithm as is well-known in the art to discovery

patterns of interest with Cookmeyer's problem filter (discovery) structure.

Therefore, the claimed invention would have been obvious to one of ordinary skill

in the art at the time of the invention.

9.   Regarding claim 5, Ma further discloses the apparatus of claim 2,

wherein validation of the one or more rules farther comprises :

- selecting a subset of the past event data from the event database
  (Ma, page 4, 4th paragraph);

- finding one or more instances of patterns expressed in terms of
  left-hand sides of rules (Ma, page 2, 2nd , and 3rd paragraph);

- generating a visualization of the one or more pattern instances using a visualization tool (Ma, page 2, 3rd, and 4th paragraphs);

- analyzing the left-hand sides of rules using a rule validation tool (Ma, page 1, fig. 1);

- displaying results of the analysis operation (Ma, fig. 3);

- the analyst assessing analysis results (Ma, page 3, 1st paragraph); and

- marking the rules as one of validated and not validated based on the assessment by the analyst (Ma, page 9, fig. 6).

10.   Regarding claim 6, Ma further discloses the apparatus of claim 2, wherein construction of the one or more rules further comprises:

- selecting a subset of the past event data from the event database (Ma, page 6, 2nd paragraph);

- mining the subset of the past event data to discover the one or more patterns using a mining tool (Ma, page 6, 3rd paragraph);

- assessing significance of the one or more patterns using a visualization tool (Ma, page 2, 3rd paragraph);

- constructing the one or more rules from a selected subset of the one or more patterns using a rule construction tool (Ma, page 3, 3rd paragraph); and

- writing the one or more rules in the rule database (Ma, page 10, 1st paragraph).

11.   Regarding claims 7-12 have similar limitations as claims 1-6, the difference is

one is claimed for apparatus, and the other is claimed for method.

Therefore, claims 7-12 are rejected for the same reasons set forth in the

rejection of claims 1-6.

12.   Regarding claims 13-14 have similar limitations as claims 7-8, the difference is

one is claimed for method, and the other is claimed for manufacture.

Therefore, claims 13-14 are rejected for the same reasons set forth in the

rejection of claims 7-8.

13.   Regarding claim 19, Ma further discloses an event management decision support

system for providing decision support to an event management system which

manages a network with one or more computing devices, the system comprising

(Ma, fig. 1):

an event analysis module, further comprising an event mining module and an

event visualization module, wherein the event mining module discovers patterns

in event data, and wherein the event visualization module provides a mechanism

for visualizing at least a result of a pattern discovery and a rule analysis (Ma, fig.

1, element block of EventAnalyzer); and

a rule management module, further comprising a rule validation module and a

rule construction module (Ma, fig. 1, element box of Rule Generator), wherein the

rule validation module maintains consistency of at least a rule with the event

data (Ma, pgae 8, ninth, and tenth paragraphs), and wherein the rule

construction module provides a mechanism for constructing one or more rules

based on event patterns mined by the event mining module; wherein the one or

more rules are constructed offline by the rule construction module and validated

offline by he event visualization module from the corresponding offline analysis of

one or more portions of the event data and the offline discovery of at least a

portion of the one or more patterns in the event data by the event mining module

(Ma, page 2, 3rd, and 4th paragraph, page 3, 3rd paragraph).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kelvin Lin whose telephone number is 571-272-3898.

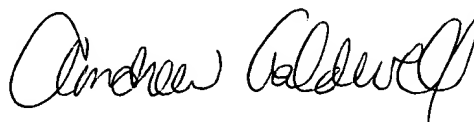The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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10/23/06
KYL

EW CALDWELL
PATENT EXAMINER